

Short Communication

Abattoir study of reproductive diseases in goats

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Genitalia from 51 female goats (*Capra hircus*) were examined after slaughter at an abattoir in Mymensingh and the frequency of abnormalities determined. Uterine abnormalities were found in 18 (35.2%) cases and uterine infection in 14 (27%). A total of six (11.8%) ovaries showed pathological lesions including three granulosa-cell tumours, two cystic ovarian degenerations, one oöphoritis and one adenomyosis. Remaining conditions included two parovarian cysts, two cervicitis, two salpingitis, and three others. Further study with detailed histopathology is recommended. (*Bangl. vet.* 2008. Vol. 25, No. 2, 88-90)

The Black Bengal goats are the predominant small ruminant in Bangladesh and are prolific and give birth every six months. In each kidding, two to three kids are born. There is no seasonal trend, but the kidding rate is high in winter (November-February). Fertility problems are rare; however a few cases of pseudopregnancy, hydrometra and hermaphroditism are recorded. There are many reproductive disorders diagnosed during post-mortem examination (Alam and Rahman, 1979; Alam, 1984). No systematic studies on genital diseases in slaughtered goats have been carried out in Bangladesh.

The goats of one and a half years of age, weighing between 12-15 kg were examined before slaughter at the Mymensingh municipal slaughterhouse. After slaughter, genital organs of 51 non-pregnant goats were brought to the pathology laboratory for examination in an icebox, and abnormalities were recorded as described by McEntee (1990).

Of 51 genitalia, 27 (52.9%) showed genital abnormalities (Table 1). Other diseases were not considered during this investigation.

Eighteen (35.2%) of the goats had uterine diseases. Among these were 14 uterine infections, one adenomyosis and three others. Six cases of ovarian abnormalities were diagnosed of which three were granulosa-cell tumour, two cystic ovarian degenerations and one oöphoritis. In addition, two cases of each parovarian cysts, cervicitis and salpingitis were recorded.

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Although reports on genital disorders in goats in abattoir materials are scanty, a few reports are available (Nair and Raja, 1972; Das *et al.*, 1979; Srivastava *et al.*, 1985; Kadu and Kaikini, 1988; Sattar and Khan, 1988; Roy *et al.*, 2001).

Table 1. Abnormalities in the genital organs of 51 non-pregnant goats

Abnormality	Number of cases	Percentage
Uterine infection	14	27.0
Granulosa-cell tumour	3	5.9
Cystic ovarian degeneration	2	3.9
Parovarian cyst	2	3.9
Cervicitis	2	3.9
Salpingitis	2	3.9
Oöphoritis	1	2.0
Adenomyosis	1	2.0
Others	3	5.9

Lyngset (1968) reported ovarian cyst in 2.4% of slaughtered goats, which were unilateral or single and between 1.2 and 3.7 cm diameter. Parovarian cysts were found between ovaries and the fimbria of the fallopian tubes. Parovarian cysts could arise from the cranial mesonephric tubules and occur in all animals (McEntee, 1990). Various micro-organisms cause oöphoritis in cows, sows and mare (McEntee, 1990), but no reports are available in goats. Granulosa-cell tumour in goats was reported by Lyngset (1963) and Lofstedt and Williams (1986).

A high frequency (27%) of uterine infection was observed, similar to the 33.3% reported by Bhuiyan *et al.*, (1988). Lower frequencies of 0.1%, 1.7%, 0.3% and 1.8% were obtained by Nair and Raja (1972); Das *et al.* (1979), Srivastava *et al.* (1985); Ahmed (1993), respectively. Cows are commonly affected with endometritis (Regassa and Noakes, 1999; Sheldon *et al.*, 2002). In cows, the pathogens associated with clinical uterine disease include *Arcanobacterium pyogenes*, *Escherichia coli*, *Fusobacterium necrophorum* and *Prevotella melaninogenicus*. *A. pyogenes*, *F. necrophorum* and *P. melaninogenicus* act synergistically to cause severe uterine infection (Olson *et al.*, 1984; Bonnett *et al.*, 1991). Non-gravid uterus is relatively resistant to infection although bacteria are always present in the vagina. The cervical canal is open during oestrus when the uterus is under the influence of oestradiol and is less susceptible to infection. Most uterine infections begin in the endometrium and are associated with mating, pregnancy, or post-partum uterine involution. In Bangladesh, poor veterinary health care at parturition causes endometritis. Goats may develop tetanus post-partum and farmers are advised to immunise the animals during late pregnancy. Cases of adenomyosis were reported in cows, bitches, sows and cats (McEntee, 1990). In this study, unopened uterine samples without fixation with preservative were studied. Small subserosal abscess was seen, which could be due to severe uterine infection.

Histopathological examination is needed for more detailed study of the genital diseases in goats in Bangladesh.

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